



**Waterloo
Manufacturing**
Company Limited

Boiler News

Volume 28

June 2012

Stacking And Breeching

Waterloo Manufacturing is pleased to offer a full line of stacking and breeching for all your boiler needs. Engineered for all boiler styles and easily installed. For additional information or pricing please contact us.



Annual Service & Genuine Cleaver- Brooks Parts

If you have forgotten to request the annual service for your boiler plant – it's not too late! The annual service is performed by our TSSA licensed Cleaver Brooks factory trained service technicians using genuine Cleaver Brooks parts. We are not only experienced with Cleaver Brooks but all makes and model of boilers and accessories.

Let Us Show You How To Save Money

There are many ways we can help you save money in your boiler room. Fuel and electrical savings add up quickly and many of the solutions we offer can have a payback of less than 2 years. Call us to enquire how we can save you money now.

Webinars From: **CleaverBrooks®**

To our Customers and Engineers we would like to point out that Cleaver-Brooks offers informative webinars regularly on a variety of topics covering all aspects of your boiler plant.

Go to: **www.cleaver-brooks.com**

and click on the webinar tab. You can register for any upcoming webinars as well as watch previously presented webinars from the archives.



Hydronic Boilers Yield Significant Savings

Before condensing boiler technology was introduced, boilers operated at 80% to 85% efficiency. Today, condensing hydronic boilers can operate at efficiencies in the mid to high 90s. Hydronic boilers can be used for either building heat or for process hot water applications.

A condensing boiler extracts latent heat in addition to sensible heat from combustion exhaust, and the results can be dramatic. Some facilities experience an energy saving up to 50% in systems that make proper use of outdoor reset schedules, aggressive night/weekend setback schemes and larger system temperature differentials.

Non-modulating (on-off) boilers operate at full fire all the time. Whereas older design units are typically most efficient at higher firing rates, the same does not hold true for today's modular boilers. These new designs tend to be more efficient at lower fire compared to high (or max) fire. The modulation helps achieve the lower firing rate. The longer a modular boiler can run at low fire, the more efficient it is. Also, each time a boiler cycles off and on, it loses efficiency. Modulating boilers can also run longer at lower temperatures, which minimizes excessive cycling.

Modern controls such as the Cleaver-Brooks Falcon, available on ClearFire® boilers, use a variety of sensors to monitor the boiler system and modulate the output of the boiler to meet a facility's demands. This modulation allows the boiler to run at lower firing rates for longer intervals while still maintaining the desired temperature.

The temperature of the return water is an important factor to consider when evaluating new modular units. Some models cannot take return water below 140°F, and

other condensing models are designed to go lower. With 130° to 135°F single return water flow, the ClearFire®-C, a condensing boiler, can achieve efficiencies as high as 90%. However, if the return water flow is 140°F or above, it is not low enough to cause condensing, and a better choice is to use a near-condensing boiler such as the ClearFire®-W.

It is often advantageous to use multiple boilers in condensing applications. Multiple boilers with turn down capabilities facilitate better overall system load matching. By installing smaller and multiple condensing boilers, a facility manager can stage the boilers depending on heating load, which will help in fuel savings compared to one larger boiler.

To learn more about modular boilers and the associated controls that can help your company reduce costs, call **Waterloo Manufacturing** or visit **Cleaverbrooks.com/clearfire**.



For information on products and services please contact us at:

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